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10/053,311	01/17/2002	David A. Potts	2032	3673
28152	7590	08/25/2004	EXAMINER	
CHARLES G. NESSLER P.O. BOX H CHESTER, CT 06412			MITCHELL, KATHERINE W	
			ART UNIT	PAPER NUMBER
			3677	

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/053,311

Applicant(s)

POTTS, DAVID A.

Examiner

Katherine W Mitchell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,7,8,10,11,13-16 and 18 is/are pending in the application.
- 4a) Of the above claim(s) 13-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,11 and 18 is/are rejected.
- 7) ☒ Claim(s) 7,8 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. This application contains claims 13-15 drawn to an invention nonelected with traverse in the reply filed on 10/14/2003. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Applicant's election with traverse of Group I in the reply filed on 10/13/03 is acknowledged. The traversal is on the ground(s) that Claim 10 is not a patentably distinct species, but an obvious subset of Group I. This was considered persuasive and Claim 10, Group II, was examined with Group I.

Claims 13-15 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 10/14/2003.

Claims 13-15, Groups III and IV, were amended to depend from Claim 1. No other argument was provided. This is not found persuasive because the restriction was for distinct species of an invention. A dependent claim can read on a species distinct from the parent. However, Claim I is now generic to all claims. Should Claim 1 be found allowable, claims 13-15 as dependent claims will be rejoined and fully examined for patentability under 37 CFR 1.104.

The requirement is still deemed proper and is therefore made FINAL.

Specification

2. The disclosure is objected to because of the following informalities: The disclosure is objected to because of an improper incorporation of essential subject matter by reference. Applicant is incorporating a reference which itself incorporated another document by reference.

An application as filed must be complete in itself in order to comply with 35 U.S.C. 112. Material nevertheless may be incorporated by reference, *Ex parte Schwarze*, 151 USPQ 426 (Bd. App. 1966). An application for a patent when filed may incorporate "essential material" by reference to (1) a U.S. patent, (2) a U.S. patent application publication, or (3) a pending U.S. application, subject to the conditions set forth below. "Essential material" is defined as that which is necessary to (1) describe the claimed invention, (2) provide an enabling disclosure of the claimed invention, or (3) describe the best mode (35 U.S.C. 112).

In any application which is to issue as a U.S. patent, essential material may not be incorporated by reference to (1) patents or applications published by foreign countries or a regional patent office, (2) non-patent publications, (3) a U.S. patent or application which itself incorporates "essential material" by reference, or (4) a foreign application. Nonessential subject matter may be incorporated by reference to (1) patents or applications published by the United States or foreign countries or regional patent offices, (2) prior filed, commonly owned U.S. applications, or (3) non-patent publications; however, hyperlinks and/or other forms of browser executable code cannot be incorporated by reference. See MPEP § 608.01. Nonessential subject matter is

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subject matter referred to for purposes of indicating the background of the invention or illustrating the state of the art.

3. Examiner originally considered this to be background material and as such it was accepted. However, applicant is now relying on the material to enable the accessing step of the best mode, and thus it is now considered essential subject matter. The material relied on may be added to the specification without being considered new matter, and examiner notes that such amendment would be entered after final if accompanied by a statement that no new matter was being introduced.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 11 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

➤ Claim 18, depending from claim 3, required sealing the hole in the surface of the soil made by the injecting pipe prior to applying air or gas. However, claim 3 requires the pipe for injecting and uplifting to be in place for the injecting to occur. Two pressurizing/applying gas steps are claimed - pressurizing the injection pipe and pressurizing the conduit. The hole cannot be sealed prior to pressurizing the injection pipe.

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- Claim 11 seems to have typing/transcription errors and lines 3-4 are identical to lines 5-6. Examiner will ignore lines 5-6.

Claim Objections

6. Claims 1 and 11 are objected to because of the following informalities: applicant describes "comprised of a conduit buried in soil which runs continuously to an upper soil surface..." The claims can read that the soil or the conduit runs to an upper soil surface. Examiner assumes it is the soil which runs to the upper soil surface, as the conduit running to soil surface would introduce new matter and would not be buried within the soil. Appropriate correction is required.

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-2, 5, 7, 8, 11, and 16 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U. S. Patent No. 6485647. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

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Re claims 1 and 11: claim 1 of U. S. Patent No. 6485647 includes a method of treating a leach field having a buried conduit comprising waste water in the conduit caused to flow into the influence zone of the soil and then pressurizing the conduit with air or other gases to replace water in the influence zone. Inherently, since the water flows thru the conduit and into the influence zone, it must have flowed from the conduit (collection point).

Re claim 2: since water is described as in the conduit, it must have served as a collection point.

Re claim 5: Removing water from conduit interior by reducing conduit interior pressure is taught in claim 9.

Re claim 7: Impeding the downward flow of air is taught in claim 13.

Re claim 8: Claim 1 teaches a septic tank (primary sewage processing unit). Examiner takes Official Notice that pumping out the sludge in a septic tank is routinely required maintenance to ensure septic system and drain field operation and minimize the solids sent to the drainfield which will subsequently contribute to drainfield plugging, and thus it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to do this in conjunction with the drainfield rejuvenation, as once the equipment and manpower to open and pump/vacuum the system are on site, the tank would be cleaned at the same time to ensure that the "waste, scum, and debris" removed from the lateral would include the waste scum and debris in the bottom of the tank, thus maximizing system performance while minimizing costs for maintenance.

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Re claim 16: The apparatus is taught in the method of claim 1 of U. S. Patent No. 6485647 - conduit buried in soil, means for applying air/gas to conduit.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-2, 5, 11 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Flynn USP 3698194.

Re claims 1 and 11: Flynn teaches a method of aerating a leach field of a sewage system, (abstract) wherein the leach field is comprised of conduit (pipes 7 and leaching canals 3 - applicant is reminded that he specifically taught that a leaching canal can be considered a conduit in page 6 lines 1-19) buried within soil, said soil continuous to an atmospheric surface, (Figs 2 and 3) said conduit having an influence zone in the soil (col 1 lines 43-60- the soil in the immediate vicinity is the influence zone) into which water flows and is acted upon biochemically to make the waste water more benign (col 1 lines 15-18 - the bacteria inevitably migrate with the waste water into the influence zone and continue waste decomposition, and bacteria naturally thrive in moist soil) which comprises:

- Causing waste water to flow to one or more collection points within the leach field (col 2 lines 38-55)

- Removing water from said one or more points (col 2 lines 1-3, col 3 lines 41-48) then
- Pressurizing said conduits with air to cause air to flow from conduits into influence zone to substantially replace water in the zone (col 3 lines 40-48, col 4 lines 1-31)

Further re claim 11: the claim assumes waste water has inherently entered the conduit at some point.

Re claim 2: The collection points are disclosed as the interior of the buried conduits in col 2 lines 42-55 and col 1 lines 11-18.

Re claim 5: Reducing the pressure in the conduit to sub-atmospheric to remove water and cause inward flow of water from the influence zone is taught by providing exhaust fans 10 at the vents 8 of the conduits. Exhaust fans will inherently cause a slight pressure reduction in the conduit, which will remove water (evaporation) and cause inward water flow from the influence zone. When suction is applied to the conduit since it is porous, the interior is in contact with waste water in the zone of influence which will inherently cause waste water to flow through the perforations and into the interior of the conduit. A suction is by definition a subatmospheric pressure.

Re claim 16: The apparatus is inherently taught by the method.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn in view of Johnson USP 5383974.

Re claim 3: As discussed above, Flynn teaches all the elements but does not disclose inserting a pipe for air injection. Johnson teaches a method of treating a sewage leach field (abstract), said leach field comprised of buried conduit (10), said conduit having an associated influence zone (11) where waste water flows and is biochemically acted upon. Johnson further teaches a penetrating nozzle 45 to force high pressure air or water into the soil to agitate the sand near the perforations of the drainfield laterals in col 5 lines 18-47. Broadly defined,

soil¹

1. The top layer of the earth's surface, consisting of rock and mineral particles mixed with organic matter.¹
would inherently include the sand or gravel around the drainfield laterals.

Therefore, it would have been obvious to one of ordinary skill in the art, having the teachings of Flynn and Johnson before him at the time the invention was made, to modify Flynn as taught by Johnson to include the air injection nozzles of Johnson, in order to obtain better waste removal from the drainfield lateral, as discussed in col 5 lines 32-36. One would have been motivated to make such a combination because

¹ *The American Heritage® Dictionary of the English Language, Third Edition* copyright © 1992 by Houghton Mifflin Company. Electronic version licensed from INSO Corporation; further reproduction and distribution restricted in accordance with the Copyright Law of the United States. All rights reserved.

improved septic system performance would have been obtained, as taught/suggested by Flynn col 4 lines 18-31, which teaches that soil drying is desirable.

Response to Arguments

13. Applicant's arguments with respect to all claims have been considered but are moot in view of the new ground(s) of rejection. However, applicant may believe some arguments apply to the new rejections, so examiner is clarifying below.

Applicant states that the "accessing" step is not required, as it is inherent. However, applicant claims a conduit "buried within the soil", not just buried in soil "Buried within" requires the entire conduit to be covered by soil, so there is no way to access the conduit with merely a reasonable inference. However, since the record is now clear on the intended steps, since the '647 patent is incorporated by reference, the rejection is withdrawn.

Absent any definition by applicant, a definition from a "general purpose dictionary" is considered a reasonable interpretation. Definitions in prior art references do not limit the pending claims.

In response to applicant's argument that Johnson removes scum from the system for a different reason, the fact that applicant has recognized another advantage which would flow naturally from following the suggestion of the prior art cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985). Examiner is fairly confident that one of ordinary skill would not be likely to pressurize a system filled with sewage without ensuring there was enclosed space for the sewage to move after being pressurized.

Allowable Subject Matter

14. Claims 7,8, and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims, subject to a terminal disclaimer and claim objection requirements.

15. Claim 18 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Katherine W Mitchell whose telephone number is 703-305-6713. The examiner can normally be reached on Mon - Thurs 10 AM - 8 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on 703-306-4115. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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18. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Katherine W Mitchell
Patent Examiner
Art Unit 3677

Kwm
8/20/04



ROBERT J. SANDY
PRIMARY EXAMINER